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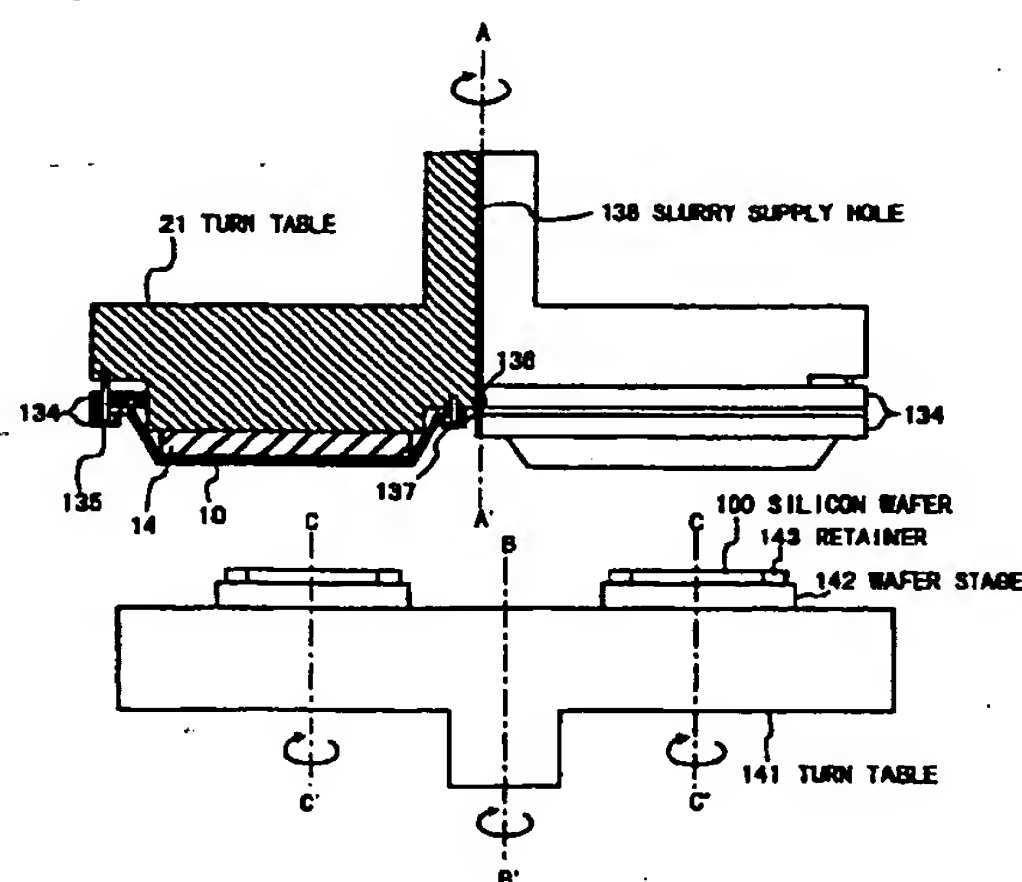
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(54) Polishing pad and apparatus for polishing a semiconductor wafer

(57) An apparatus for polishing a semiconductor wafer includes a polishing pad to be in contact with the semiconductor wafer; a turn table which rotates the polishing pad; and an elastic member which is arranged between the turn table and the polishing pad. The polishing pad includes a polishing layer which is made of a material having a good characteristic of slurry holding; and a support layer which is made of a rigid material having an optimum thickness to prevent the polishing layer from loosening. The polishing pad is attached to the turn table by a stretch-holding technique without adhesive bonding.

FIG. 1



EP 0 845 328 A3



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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
D, Y	PATENT ABSTRACTS OF JAPAN vol. 018, no. 065 (M-1554), 3 February 1994 & JP 05 285825 A (SUMITOMO METAL IND LTD), 2 November 1993 * abstract *	1-7, 12-16	B24B37/04 B24D13/14 B24D3/28
Y	EP 0 555 660 A (WESTECH INC ;RODEL INC (US)) 18 August 1993 * column 6, line 57 - column 7, line 44 *	1-7, 12-16	
D, A	US 5 212 910 A (BREIVOGEL ET AL.) 25 May 1993 * column 4, line 26 - line 68 *	1, 12, 13	
A	PATENT ABSTRACTS OF JAPAN vol. 008, no. 107 (E-245), 19 May 1984 & JP 59 022329 A (NIPPON DENKI KK), 4 February 1984 * abstract *	1, 12, 13	
A	EP 0 658 401 A (SHINETSU HANDOTAI KK) 21 June 1995 * page 5, line 6 - page 6, line 13 *	1, 12, 13	TECHNICAL FIELDS SEARCHED (Int.Cl.6) B24B B24D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 30 October 1998	Examiner Garella, M
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